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Title: Serum interleukin-10 levels as a prognostic factor in advanced non-small cell lung cancer patients

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Body: Introduction: IL-10 serum levels were measured before chemotherapy, on completion of therapy, and at follow-up by means of a commercially available enzyme-linked immunoassay. Methods: Sixty consecutive patients, stage III or IV NSCLC undergoing conventional platinum-based regimens. Results: Elevated levels of serum IL-10 were found in cancer patients with respect to healthy control subjects (15.2 vs 7.2 pg/mL; $p < 0.05$), with patients with metastatic disease showing significantly higher levels than patients with undisseminated cancer (19.4 vs 12.1 pg/mL; $p < 0.05$). Following completion of treatment, patients were classified as responders and nonresponders. Retrospective analysis of basal IL-10 serum levels in these two subgroups showed a significant difference between responders and nonresponders (11.2 vs 19.1 pg/mL; $p < 0.05$). Moreover, a further significant increase in IL-10 serum levels was observed in nonresponders at the end of therapy (19.1 vs 25.6 pg/mL, prechemotherapy and postchemotherapy; $p < 0.05$), whereas values in responders were found to have significantly decreased (11.2 vs 10.1 pg/mL, prechemotherapy and postchemotherapy; $p < 0.05$). Stepwise regression analysis identified IL-10 serum level and stage as the prognostic factors related to OS, and IL-10 serum level and performance status as the prognostic factors related to TTF. Conclusions: In conclusion, this study shows that the measurement of pretreatment IL-10 serum levels is of independent prognostic utility in patients with NSCLC and may be useful for detection of disease progression.